

French forests.

A VERY CAREFUL and thorough discussion of the forests of France has come from MM. Boppe and Joylet of the national school of forestry at Nancy.² The work begins with a discussion of the form and reproduction of a tree as influenced by its environment, followed by descriptions of the principal native species, in which the habitat, distribution, and forest value of each are given. Then follows a detailed treatment of the forest-stand, the influence of its trees upon the soil and upon each other. An aggregation of stands makes a forest. As concerns forests, the climate of France falls into two great divisions: (1) that of the plains, subdivided into three zones according to the distribution of the rainfall and the resultant forest growth; and (2) that of the mountains, the climate of each mountain system being treated separately.

The greater part of the book is devoted to a detailed discussion of the methods and principles of silviculture as employed in France. Of special economic interest is the account of the reforestation of denuded mountain slopes and of the fixation of sand dunes.

In the treatment of the forests in their biological and silvicultural relations this book covers the ground more thoroughly than any American treatise on a similar subject.—C. D. HOWE.

MINOR NOTICES.

ALICE R. NORTHROP³ has published an account of the flora of two of the Bahama islands, with an enumeration of the plants collected by John I. Northrop and herself in 1890, a collection including 542 species. After some description of the general ecological features of the region, the list of plants is given. Several new species from the collection had previously been described by various authors, and the present publication contains additional new species, and also two new genera of palms (*Paurotis* and *Cyclospathe*), described by O. F. Cook. Following the list is a study of the relations of the Bahama flora, as illustrated by the collection of the author. Of the 453 native vascular plants found on New Providence and Andros, 176 are reported from other islands of the group, 335 from Cuba, 250 from southern Florida, 108 from southern United States, 286 from Jamaica, 190 from Virgin islands, 223 from Windward islands, 196 from Mexico and Central Mexico, and 199 from South America.—J. M. C.

NOTES FOR STUDENTS.

HUNGER⁴ has studied the granules which occur in the thallus of *Dictyota*. He finds that the smaller ones near the plastids are of a monosac-

²BOPPE, L., and JOYLET, ANT., *Les forêts, traité pratique de silviculture*, pp. xi + 488. 95 photogravures. Paris: J. B. Baillière & fils. 1901.

³NORTHROP, ALICE R., *Flora of New Providence and Andros (Bahama islands)*. Mem. Torr. Bot. Club 12: 1-98. pls. 1-19. 1902.

⁴HUNGER, F. W. T., *Ueber das Assimilations-Product der Dictyotaceen*. Jahrb. Wiss. Bot. 38: 70-82. 1902.